



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/534,178

05/05/2005

Josef Beck

18677

9983

23389 7590 11/25/2008
SCULLY SCOTT MURPHY & PRESSER, PC
400 GARDEN CITY PLAZA
SUITE 300
GARDEN CITY, NY 11530

EXAMINER

KASTURE, DNYANESH G

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

11/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,178	Applicant(s) BECK, JOSEF	
	Examiner DNYANESH KASTURE	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The previously made 112 2nd paragraph rejections to claims 8-14 are reaffirmed despite the amendments to claim 8 submitted on November 4, 2008 because even though the previous reason does not apply, there is still lack of antecedent basis as discussed below.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4, 6-7, 8-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 and 8 recites the limitation "the radially inner edge" in line 7. There is insufficient antecedent basis for this limitation in the claim. The following is suggested instead: "a radially inner edge". Also, Claim 8 has a typographic error: ".. bores,-in..".

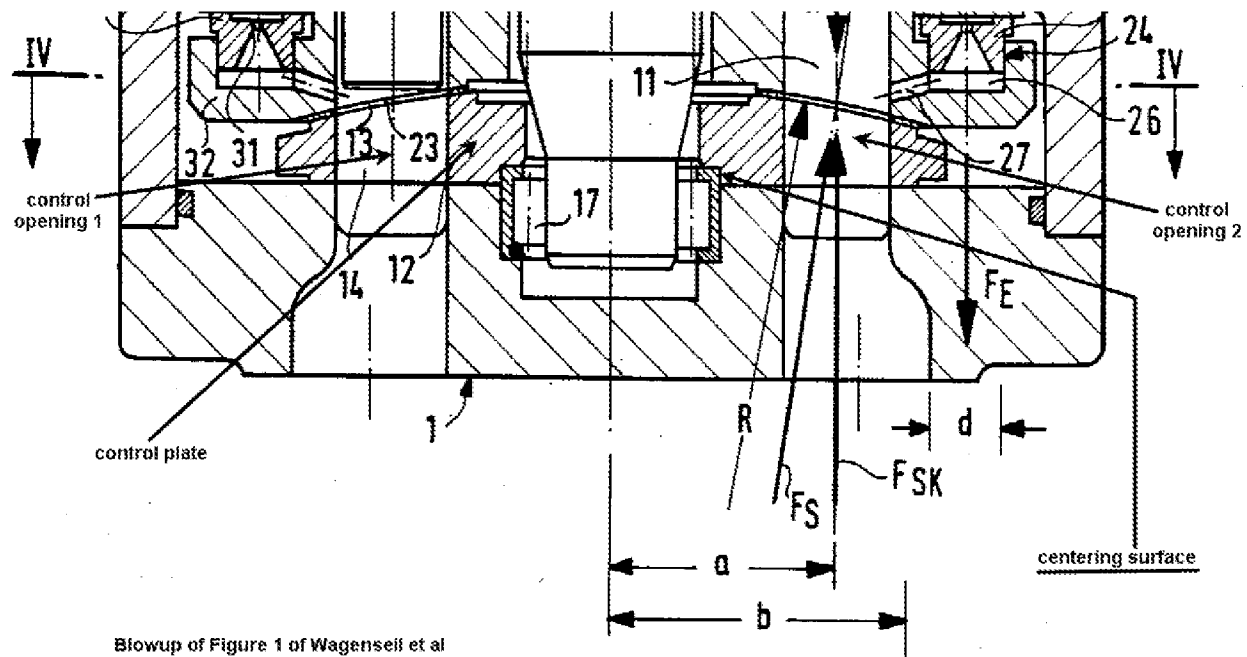
5. Claim 4 recites the limitation "the radial extension" in Line 1. There is insufficient antecedent basis for this limitation in the claim. The following is suggested instead: "a radial extension".

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 6-12, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagenseil et al (US Patent 4,602,554 A) and in view of Fisher et al (US Patent 6,252,321 B1)



8. In Re claim 1, with reference to blowup of Figure 1, Wagenseil et al discloses a control plate (12) for an axial piston machine having at least two control openings (annotated), by means of which cylinder bores (11) of a cylinder drum (9) rotatably mounted in a housing are alternately connected, on rotation of the cylinder

Art Unit: 3746

drum, to a high-pressure connection and a low-pressure connection, a through-opening (for shaft 4) being formed in the control plate (Column 4, Lines 25-30 state: "...control surface 13 of which has kidney-shaped control openings 14 which, as the cylinder 9 rotates, may or may not be covered by the piston bores 11 and therefore control, in the manner of valves, pump operation or motor operation of the axial piston machine 1"), wherein:

- the radially inner edge of the control plate is designed as a centering surface (annotated) which centers the control plate on a centering body (outer surface of bearing 17) on the housing.

9. However, Wagenseil et al does not disclose a plurality of partial surfaces separated by recesses and a further recess for a locking element.

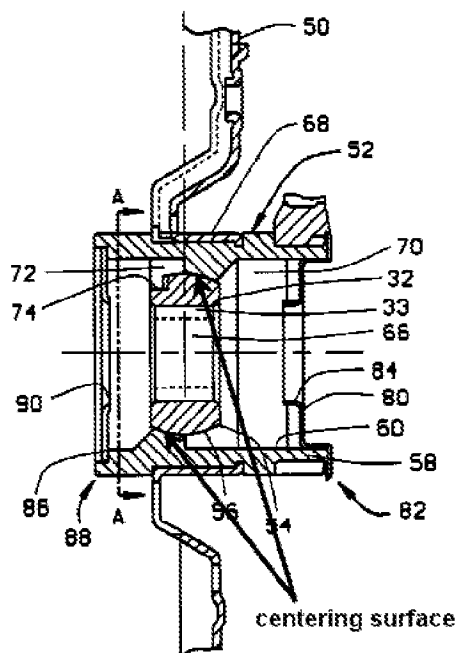
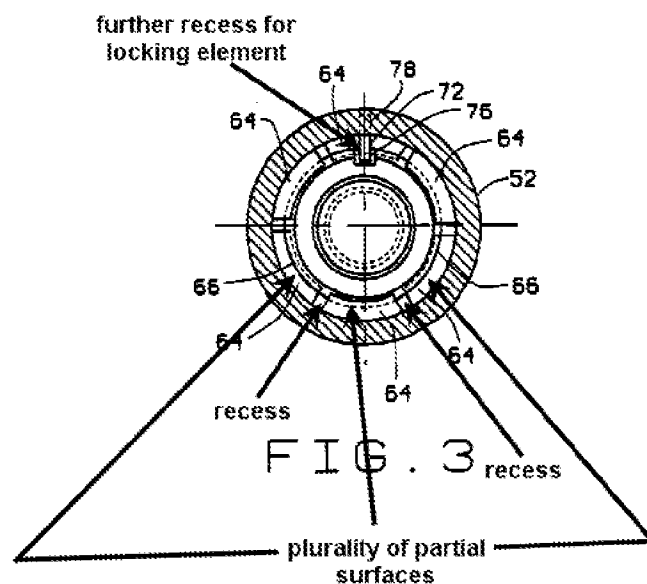


FIG. 2

Figures 2 and 3 of Fisher et al



Art Unit: 3746

10. Nevertheless, with reference to Figures 2 and 3 depicted above, Fisher et al discloses how housing element (52) is secured to the outer surface of bearing (32) by a plurality of partial surfaces (annotated) formed on segments (64) of the inner edge of the housing element (52), which extend radially inwardly into the through opening (33) and are separated by recesses (annotated) and a further recess (annotated) for receiving a rotation-locking element (72)

11. It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the centering surface of Wagenseil et al so it comprises a plurality of segments with recesses and a further locking element recess as taught by Fisher et al as an alternate design choice that secures the bearing and port plate, for the purpose of preventing the relative rotation between the port plate and the bearing.

12. In Re claim 2, Fisher et al depicts three partial surfaces as depicted in Figure 3.

13. In Re claim 3, the projections (64) of Fisher et al are positioned on both sides of the centerline (66) thereby providing at least one gap.

14. In Re claim 4, Wagenseil et al discloses a stepped portion on the outer circumference of the control plate as depicted in Figure 1 which is in the region of the control openings.

Art Unit: 3746

15. In Re claim 6, Fisher et al depicts in Figure 2 that the cross section of segments (64) have reduced thickness at the centering surface as compared to the thickness at its base where it is connected to element (54).

16. In Re claim 7, Column 4, Lines 25-26 of Wagenseil et al state: “..control surface 13 of which has kidney-shaped control openings 14..”.

17. In Re claim 8, Wagenseil et al discloses pistons (8) and a centering body (17) connected to the housing.

18. In Re claim 9, Wagenseil et al and Fisher et al as applied to claims 8 and 2 discloses all the claimed limitations.

19. In Re claim 10, Wagenseil et al discloses the cylinder drum is fixed against relative rotation on the shaft by swash plate (5), the shaft mounted on bearing (17) on the control plate side which is centered on the outer race of bearing (17).

20. In Re claim 11, Wagenseil et al and Fisher et al as applied to claims 8 and 3 discloses all the claimed limitations since the radial extent of the individual recesses is greater than the radial extent of the centering body.

Art Unit: 3746

21. In Re claim 12, Wagenseil et al and Fisher et al as applied to claims 8 and 4 discloses all the claimed limitations.

22. In Re claim 14, Wagenseil et al discloses that the cylinder drum rotationally slides over the control plate with kidney shaped openings. In addition the control plate surface is convex shaped, which suggests that the plate and the drum are disc shaped. The bearing would also have to be disc shaped since it has an inner race which rotates with respect to the outer race.

23. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagenseil et al (US Patent 4,602,554 A) and in view of Fisher et al (US Patent 6,252,321 B1) and further in view of Tovey (US Patent 4,757,743 A)

24. In Re claim 13, Wagenseil et al and Fisher et al as applied to claim 8 disclose all the claimed limitations except for the groove as claimed.

25. Nevertheless, Tovey depicts in Figure 1A that the interior of the control plate communicates with the space surrounding shaft (22) which further communicates with passageways (grooves) in the region on the side of the control plate facing away from the cylinder drum, the passageways further extending through elements (58) and (60) to passage leading back to the swash plate chamber (outside of the control plate) in the region of reference label "1r" and "68", thereby connecting the inner volume to the outer volume.

Art Unit: 3746

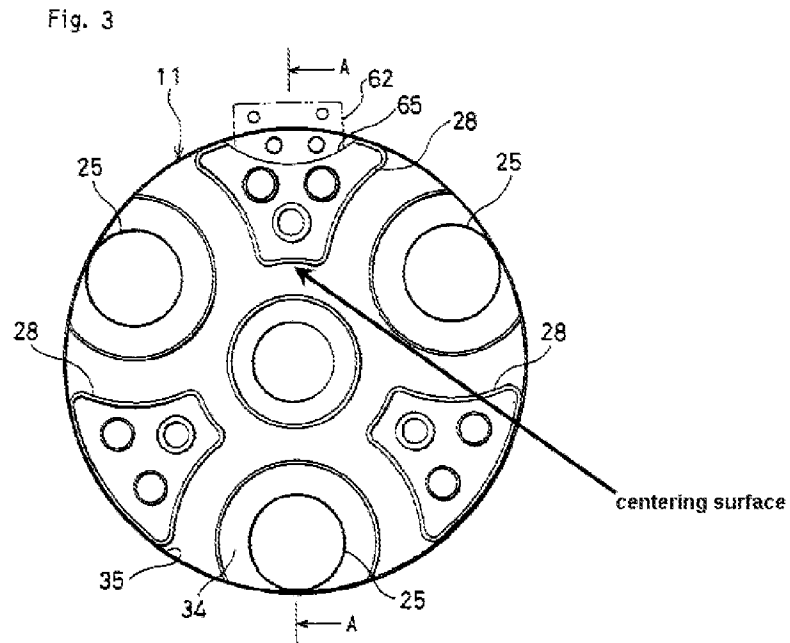
26. It would have been obvious to a person having ordinary skill in the art at the time of the invention to form a passageway/groove as taught by Tovey in the region of a separating area of the control plate of Wagenseil et al modified by Fisher et al which connects the inner edge area of the control plate to the outer edge area for the purpose of balancing pressures.

Response to Arguments

27. Applicant's arguments with reference to Tovey and Borcharding were persuasive, therefore all prior rejections with reference to Tovey in combination with Borcharding are hereby withdrawn. Accordingly, new grounds of rejection are being made in this office action, and as a consequence this action remains Non-Final.

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tsunemi et al (PG Pub US 20020034998 A1) discloses another set of segments (28) in Figure 3 depicted below, each with a centering surface.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to DNYANESH KASTURE whose telephone number is (571)270-3928. The examiner can normally be reached on Mon-Fri, 9:00 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571) 272 - 7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art
Unit 3746

DGK